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JONES'S
ANATOMICAL
STANDARD

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THE

ANATOMICAL STANDARD,

BEING

AN UNERRING SYSTEM OF MEASURING AND CUTTING TO FIT THE HUMAN FIGURE,

ADAPTED TO EVERY VARIATION IN THE FORM OF THE BODY,

AND

APPLICABLE TO EVERY CHANGE IN FASHION OR FANCY.

BY JAMES JONES.

ACCOMPANIED WITH A SPLENDID ENGRAVING

OF 21 MATHEMATICAL FIGURES,

AND FIVE WELL EXECUTED PORTRAITS.

PATRONISED BY MANY OF THE FIRST TAILORS IN THE BRITISH EMPIRE.

MANCHESTER:
W. SHACKLETON AND SON, PRINTERS, DUCIE PLACE.
MDCCCXLI.

932.

ENTERED AT STATIONERS' HALL.



INTRODUCTION.

In treating upon the science of cutting, the author is aware of the great difficulty there is in introducing a work of this kind to the trade, in consequence of the number of publications which have appeared of this nature, and from the continual disappointment which all must have felt from the uncertainty of the principles upon which they were founded; no wonder that prejudice should have a predominant influence over the minds of many.

In perusing the various systems which have been published from time to time, to persons of discernment they appear like so many different methods of producing the same or similar undeviating outlines; that is to say—copying from each other, and forming the same figure, though by different lines or proportions, from the same uncertain substitute. How near each or any of them approach to the varied shapes of the human figure is unnecessary to decide, inasmuch as the authors themselves, notwithstanding their pretended claims to perfection, so manifestly shew their own deficiency,—remarks on what is termed disproportion, necessarily implying a random deviation from the general rules, together with the opposite opinions entertained by different authors, sufficiently

shows the dubious basis upon which their systems are founded; but when supposition is made the ground work of any art, science, or system, we do well to doubt the veracity of its author, as well as treat the production of his study with the deserved marks of disapprobation: because, if a principle be uncertain, it is in vain to expect satisfactory results in practice, and if we endeavour to attach to a system a mode of deviation, in order to fit the different shapes or positions the human body may require, we shall find as many different opinions to contend with as positions we were endeavouring to describe, and the result of all, when brought to the test of the experienced critic will be, that instead of satisfying the desires which were first anticipated, they serve only to reflect upon the abilities of each author, and to deter individuals from being similarly imposed upon in future.

It is not, however, the intention of the author of these pages to introduce a new system, by declaiming against the productions of others, because the principles of a system must be in some measure understood before they can be appreciated; in accordance with which, the author has taken the most effective means for testing his principles, by calling several meetings of the trade together, composed of the most practical cutters in the west end of London; and in order that the system might be fairly investigated; the most disproportionate individuals that could be

found were brought on the occasion, when the results were so satisfactory, as to induce many to take instructions in the system, amongst whom were various authors, who hesitated not to give their assent as to its superiority over all others. Therefore to show the importance of more certain principles than those previously understood, it will be necessary to treat a little upon various methods which have been composed of 3rd and 4ths of the breast measure, and afterwards explain how all the varieties of shape and position may be fitted by one unerring standard.

The method of forming coats by proportions of the breast and other measures has been adopted for more than twenty years, and it must be admitted, if all mens' shapes were exactly the same, with the exception of the variation in size, perfect fits might at all times be produced by systems founded upon proportions. But such is not the case; on the contrary, it would be difficult to find two persons of even the same size, whose shape would be exactly the same, in consequence of which, a method of deviation was introduced under the name of disproportion—a method equally uncertain, inasmuch as no cutter can, from observation, form an exact idea of the different points of variation, the most critical observer being liable to error from awkward, loose, fitting clothes on the body.

Amongst the varieties of form in the human figure, the following are worthy of notice:—high and

low necks, square and sloped shoulders, full and flat backs, large and small chests, upright and stooping positions, as also the variations required in the spring of the skirt, according to the size of the hips, and the shape of the sides of the body: points, which if not precisely obtained, correct fitting can never be accomplished. The expensive alterations, even in large establishments, clearly evince the truth of these statements.

It is the design of the author, in presenting this work to the trade, to obviate all these incomprehensible deviations arising from the use of proportionate systems, in the practice of which no individual can ever arrive at anything like perfection, by putting them in possession of one standard principle, which may be relied upon in all cases, whether the person be a good figure, or as some might term him disproportionate; and even in cases of malformation, the same method will apply to all without deviation. Many cutters have ridiculed the idea of this ever being arrived at, and indeed upon the old system nothing of the kind could ever be expected. This the author, by the adoption of his principles, feels confident he has accomplished, from the constant practice he has had upon it for years, and the high repute in which it is held by all those who are now practising upon the system, no doubt whatever can remain as to its utility. The system is entirely new, having not the least similitude of any other system, contains no proportions

of breast or other measures, but the whole founded in actual measurement. The author is aware, that the idea of cutting by measurement has been for some time held in disrepute, and for two reasons: first, because all the methods of measurement hitherto introduced were not calculated to produce what was intended; and secondly, because many who are in the habit of taking measures, take them very incorrect. The latter can only be obviated by care, because however correct a system may be, if measures be not carefully taken, good fits cannot be expected.

The measures are taken by means of an instrument which fit to the body, taking the shape of the back, sides, and chest, and all other points clearly ascertained, by certain measures in connection therewith. The measures can be taken as deemed best, either with or without a coat: if the former, no allowance need be made, but if the latter, seams must be allowed for making up; after the shape of the body has been taken, the outline must be produced, and cut by accordingly. The system is not affected by fashion or fancy, as whatever form of back is cut, the fore-part is sure to correspond, and the sleeve to accord with both. Every thing to fit the body is included in the system: coats, vests, boys jackets, tunicks, habits, &c., leaving all matters of peculiar taste to be executed according as fashion or fancy may direct.

OBSERVATIONS ON MEASUREMENT.

Measurement may be considered the only rule by which the form and size of any object can truly be determined, without regard either as to shape or dimensions; and the more complex the object is, the more measures are required to accomplish it.—Some measures may be said to take only the size, whilst others bear more particularly upon the shape. But in all cases where the form of the object is of importance, measures that bear directly upon the shape are indispensably necessary. If these principles be carried out with reference to the human figure, it will appear that every particular part of the body must have a measure assigned to it, and applied in such a manner as to take the exact form of the part over which the measure is taken. Hence the necessity of laying down certain methods by which to proceed, inasmuch as when the foundation is laid, the superstructure is easily erected.—This has been the intention of the author in the invention of his anatomical instrument, which when placed upon the body, gives the standard points from which the various measures can be taken, and from the peculiarity of its construction is adapted to all the varied shapes and posi-

tions, and is of equal service even when applied in cases of malformation. The following are the points clearly ascertained by the author's system of measurement. First—the depth of the arm hole, from the top of the back, whether the stand of the collar be broad or narrow. 2nd—the front of the sye from the centre of the back. 3rd—the fall or rise of the shoulders. 4th—the space required as a receptacle for the shoulder bone, with a perfect fit at top of sideseam. 5th—the distance of the shoulder from its closing position, or as some term it, the straightness of the shoulder. 6th—the entire hollow of waist and shape of the sides. 7th—the spring of skirt and space required for the projection of the hips. 8th—the depth of the forearm in its distance from the back seam. From a perusal of the principles upon which this system is founded, it will be clear, that all which is required to perfect the science of cutting for the practical use of the trade is undoubtedly ascertained, and all those endless calculations, which have nothing better for their basis than mere supposition entirely superceded.—The mind of the cutter being fully at ease, the natural result of the adoption of true principles.

REMARKS ON THE

VARIATION OF THE HUMAN FORM.

There are few persons who have been in the habit of cutting by a scale of proportions but must be aware of the divers shapes of human bodies, for if not noticed in the act of measuring, in trying on, or at the completion of the garment, the defects will be obvious. Those individuals who argue so much for the similarity of shape in all men of the same size, give most decided proofs of their inexperience as cutters, and their want of judgment in the way of observation. It is impossible to assign reasons for every deviation which comes under notice, neither is every deviation a mark of disproportionate or awkward figure; but the major part of those extreme deviations are caused either by delicate constitutions, too early an application to business, or inattention in youth; but from whatever cause they may have originated, the fact of their existence, and the difficulty of fitting them by arithmetical calculations, or proportions of one part of the body to the regulating of every other, will be generally acknowledged. It is no uncommon occurrence to meet with two persons of the same size, and one requiring the armhole an inch and a half lower than the other on

the body. This variation produces a strange appearance in the form of the fore-part of the back sye would be low, and consequently the shoulder seam long and sloped, with a short body from the sye to the hip. Others have, as may be termed a flat back, from an over upright position, or from being filled up in the hollow of the waist, the shoulder bones are thrown in; and the back, from the sewing of the collar to the hip buttons, would fit to a straight line. This figure if unconnected with the low shoulder just described, would, when marked out, present a fore-part with the back shoulder point projecting over that of the side-seam, unless the formation of the chest in the front of the arm should call for a straight shoulder. Others are more prominent on the shoulder bones, requiring more distance from the centre of the back to the front of the sye; and generally a shorter fore-part. This position also may require, from the formation of the chest, a crooked or straight shoulder, as the measure alone must decide. In connection with the different shapes of bodies, skirts will also vary; for instance, a man may be full about the shoulders, yet small on the hip projection; whilst another may be flank on the shoulders, and large over the hips.

The principal deviations in corpulent figures are,—short necks, high shoulders, and the hollow

of the waist filled up between the two projections, from the shoulder blades upwards the position is erect. The sides of the body are also straight from the sye to the hip bone: this occasions less spring in the skirt, and more distance is required from the bottom of the armhole to the middle of the back at the hip, and less taken out between the body and skirt under the arm, also less distance from the top of the back to the bottom of the sye.

Hump backs are of various kinds; sometimes the projection is in the centre, and in other cases on one shoulder. The shoulders are generally higher at the part where the arms are attached to the body than at the neck. The hip projection is small, and the prominency of the shoulder blades, if the hump is in the centre, diminished by the extreme projection. The protuberance in some is gradual, on others coming to a point. The position of the shoulders are changed by the deviation in the form of the chest, which is such as generally requires a straight shoulder strap. Nothing can be more difficult than to find out the relative proportions of one part of the body to the other in these cases, and the shape can only be ascertained by a well-regulated system of measurement.

DESCRIPTION OF THE

MATHEMATICAL FIGURES.

Figure 1st,—Represents the back of a frock coat with the lines upon it, showing the working of the system; it is cut rather broad across the shoulder with a straightish side-seam, that being the most fashionable cut, but without deviation from the system; any shape of back may be produced, suited to change of fashion, or fancy of the customer.

Fig. 2nd,—Represents the body and skirt of the frock coat to correspond with the back. The lines upon it show the utility of those on the back. The figure is drawn upon one-eighth of an inch scale, and is what might be termed a proportionate form; the position is rather erect. From a different shaped back, the system would produce a forepart to correspond.

Fig. 3rd,—Represents the sleeve of the frock coat, and is regulated to suit the width of the back and the size of the arm-hole, without the awkwardness of altering it by judgment.

Fig. 4th,—Represents a dress coat answering to the measures of the frock coat with the exception

of the shoulder, which is one inch forwarder, as will be found by marking out; the back is the same as that of the frock coat.

Fig. 5,—Represents a roll collar vest drawn out by the same measure as the dress coat, and upon the very same principle; the scale is also the same. The neck and front may be altered according to the sort of breast required.

Fig. 6,—Represents a boy's round jacket, of 14, breast with all the lines and points upon it. In this figure will be seen the difference in form between boys and men; particularly in the shoulder strap, although produced in the same way.

Fig, 7th, 8th, 9th, and 10,—Represents the upper part of a lady's riding habit, based upon the same principles as the coat, the back and body are according to the present style. The sleeve is full, but if a close sleeve is preferred, it must be worked in the same manner as the coat sleeve.

Fig. 11,—Is a corpulent man's vest, answering to the measures of the coat.

Fig. 14,—This shows the variation produced by the system, without deviating from the principles. The neck can be cut to any style or fashion.

Fig. 12,—Represents a tunick body on quarter of an inch scale. The large sleeve the same as the habit, the close one the same as the coat.

Fig. 13,—Represents the back of a stout man's coat, with high shoulders, as may be seen from the height of the back sye, and the line which gives the bottom of the armhole.

Fig. 14,—Represents the stout man's coat, its difference in form, dictated according to measure.

Fig. 15,—Represents the sleeve of the above coat, regulated as Fig. 3, according to the width of the back and the size of the arm-hole.

Fig. 16.—Represents a Taglioni coat, drawn out by the measures of the frock coat below, only the waist being two inches longer; it is double breasted, the lappels going on rather short to the body. The waist to be well stretched in the seam for the extra length.

Fig. 17,—Represents a jacket to button close up into the neck. The measure taken is of one of the finest and most muscular men in the Life Guards, the shoulder strap is very erect, with a short neck, and the form of the back according to military cut.

Fig. 18,—Represents the shoulder and breast of a coat, intended to shew the manner in which the collar is fitted to the neck.

Fig. 19,—Shows the method of forming a cape from the body and back, when joined in the shoulder seam.

Fig. 20,—Represents the back of a coat, cut for a hump backed man, drawn out by the measure.

Fig. 21,—Is the forepart and skirt to correspond. The shoulder is very erect and square, and very little spring in the skirt. Altogether it has a very novel appearance.

N.B. All the figures contained in the engraving have been cut in the metropolis, and have stood the test of the most experienced critics.

ON MEASUREMENT.

First take the common measures which merely take the size: as from top of back to waist, say 17—continue to the projection, say 22—down to the bottom of skirt, say 38—from the middle of the back to the elbow, say 22—to the hand, 34—tight round the sye, 17—elbow, 6¼—wrist, 4¾—breast, 19 under—waist, 16½ under—lapell, 24.

DIRECTIONS FOR MEASURING THE SHAPE.

After the usual measures are taken, such as lengths and widths, the coat must be buttoned up as close into the neck as possible, so that the coat you measure upon (whether it be a good or bad fit) will be close to the body in all parts. This being done, you apply your instrument. The small hook on the top of the spring to be hooked to the centre of the back at the sewing on of the collar. This spring will come out by pressing the instrument close under the arm, with the centre or spine of it exactly in the centre of the coat back, and bring it up in front till it fits the back and sides as close as possible, even as close as the cloth itself,

hook it in front with the same dimensions upon each other, so as to form a centre. This must be done about the same tightness as you take the measure of a person's chest by an inch tape under the coat, so that the measure over the coat with the instrument, will be about an inch in the half circumference more than the measure taken under the coat, unless the coat you measure over has a very thick front, when it may be an inch and a half more than the under measure, say 20, which is the dress coat measure, figure 4th. After the instrument is properly adjusted, you then proceed to take the measures. The first measure taken is from the top of the back, (or from where you intend the top of the back to be) to the top of the instrument, say $7\frac{3}{4}$: this measure gives you the line for the bottom of the sye, as the inches are on the instrument from back to front; you next look out the figure, which is for the front of the sye, say $12\frac{1}{2}$: this figure must neither be too forward nor too backward, but so as to be at a right angle with the top of the instrument, close against the shoulder bone; then take the end of the inch tape and put it to the top of the back in the centre, at the sewing on of the collar, (which is the exact point from which you took the first measure,) and bring it straight down and tight to the top edge of the instrument at the figure, which you have designed for the front of the sye, say 12; thenplace the end of the inch tape at the top of the instrument which is in the centre of the back, and

bring it over the shoulder tight to the same figure, which is the front of the sye, say 15¾; next look out a figure under the arm on the instrument about the centre of the sye, say 9, and take the measure from the top of the back over the fall in at the top of the sideseam to that figure, say 12½; then look out a figure on the instrument, which is about the width you intend to make the back, say 6, and measure from that figure over the tip of the shoulder to the centre figure in front, say 18; then measure from the top of back to the centre figure in front of the breast, say 11½, which is the straightness of the shoulder: this measure must be taken very tight, as the neck is stretched by the putting on of the collar; next measure from the figure which you have designed for the front of the sye to the centre of the back at the waist, according to the length of waist which you intend the coat to be, say 14¼; then take what is the side hollow, by placing the inch tape to the prominent part of the sideseam, rather under the arm, straight down to the hip bone, and see what the hollow is, say 1¾; next measure for the fore-arm of the sleeve, by placing the measure to the centre of the back, continuing down the back-arm seam to the distance of about 17 inches, then fold the measure over the upper part of the sleeve to the fore-arm seam at the sye, say 28 inches; this completes the measures for the coat, which will at all times ascertain the shape of the body, no matter whatever the shape may be.

MEASURES OF THE

FIGURES UPON THE PLATE.

FROCK COAT, Figs. 1, 2, 3.

Length of waist, 17—to projection, 22—to bottom of skirt, 38—from middle of back to elbow, 22—to the hand, 34—round the sye tight, 17—elbow, 6¼—hand, 4¾—chest, 16½—waist, 23—lapell, —.

SHAPE MEASURES.

From top of back to top of instrument.....	7¾
From top of instrument to front of sye.....	12½
From top of back to front of sye	12
From top of instrument to front of sye.....	15¾
The figure on the instrument under the sye....	9
From top of back to 9	12½
From 6 opposite the back sye to 20, the centre figure in front, over shoulder	18
From top of back to centre figure in front	12½
From the figure in front of the sye to hip.....	14¼
Side hollow.....	1¾
Sleeve from the middle of back down back arm-seam.....	17
Continued over the upper part of sleeve	28

DRESS COAT, Fig. 4.

The measure entirely the same as the frock coat, except the shoulder 1 inch straighter 11½

VEST, Fig. 5.

Length 24

Other measures same as dress coat.

BOY'S JACKET, Fig. 6.

Length of waist	14¼
Middle of back to elbow	15¼
To the hand	25
Round the sye	11
Elbow	5
Hand	3¾
Breast	13
Waist	12

SHAPE MEASURES.

From top of back to top of instrument	5
From top of instrument to front of sye	9½
From top of back to front of sye	8½
From top of instrument to front of sye	11¼
Figure under the sye	7
From top of back to centre of sye	8¾
From 4 on the instrument over shoulder, to centre figure 14 in front	11¾
From top of back to centre figure in front	9
From the figure in front of sye to hip	11½

Sleeve fore-arm, down back arm seam 12
Continued over to fore-arm 19½

HABIT MEASURE, Figs. 7, 8, 9.

Length of waist 15¼
Length of fore-arm..... 19½
Breast measure 20
Waist 14¾

SHAPE MEASURE.

From top of back to top of instrument 8¼
From top of instrument to front of sye 13
From top of back to front of sye 12
From top of instrument over the shoulder, to front of sye 16
The centre figure under the sye..... 10
From top of back to 10..... 14
From 6 on instrument to 20, centre figure in front 17
From top of back to centre figure in front.... 10
From front of sye to hip..... 12¾
From sye to waist 6¼
From top of back to teats 12¼
From top of instrument under the arm to teats 16½
From top of back to bottom of stomacher.... 20½

VEST, Fig. 11.

Length 24
Other measures taken from the coat, Fig. 14.

TUNICK, Fig. 12.

Length of Waist	10
To bottom of skirt	24
Length of fore-arm full sleeve	12½

SHAPE MEASURES.

From top of back to top of instrument	3½
From top of the instrument to front of sye	8
From top of back to front of sye	8½
From top of instrument over shoulder to front of sye	10¼
From top of back to centre figure in front	9
The centre figure under sye	6
From top of back to 6	7¼

STOUT MAN'S COAT, Fig. 13, 14, 15.

Length of waist	16
Projection	21
Middle of back to elbow	20
To hand	32½
Elbow	6½
Hand	4¾
Breast	20
Waist	22
Lapell	25½

SHAPE MEASURE.

From top of back to top of instrument	6¾
From top of instrument to front of sye	13

From top of back to front of sye 12
From top of instrument over shoulder, to front of sye..... 16
Figure under the sye 9
From top of back to 9..... 12
From $6\frac{1}{2}$ on instrument to 21, centre figure in front..... 18
From top of back to centre figure..... $12\frac{3}{4}$
From front of sye to hip..... 14
Sleeve fore-arm :—
Down back-arm seam..... 17
Continued over to fore-arm $26\frac{3}{4}$

TAGLIONI COAT, Fig. 16.

The measures answer to the frock, and produced in the same manner; if for a top coat, half an inch must be allowed all down the back seam, and the waist well stretched, or a little thrown out at the hip of the fore-part, a trifle also may be put at the top of the back seam, terminating at the shoulder seam.

HORSEMAN'S JACKET, Fig. 17.

Length of waist..... 18
Breast measure..... 20
Waist..... 17

SHAPE MEASURES.

From top of back to top of instrument $8\frac{1}{2}$

From top of instrument to front of sye..... 13
From top of back to front of sye 12⅓
From top of instrument over shoulder to front of sye..... 16
Figure in centre of sye 8⅓
From top of back to 8⅓ 13
From 6 inches on the instrument to 21⅓, centre figure in front..... 17⅓
From top of back to centre figure..... 11¼
From front of sye to hip..... 14

HUMP BACK COAT, Fig. 21.

Length of waist 14⅓
Projection 19
To bottom of skirt..... 34
Sleeve to elbow 19
To hand..... 32
Elbow..... 6¼
Hand 4⅓
Breast 19
Waist..... 17⅓
Side hollow 1

SHAPE MEASURES.

From top of back to top of instrument..... 5¼
From top of instrument to front of sye..... 13
From top of back to front of sye 10¾
From top of instrument to front of sye..... 14
gure under the sye..... 9

From top of back to figure 9..... 10½
From 7 to 20, centre figure in front..... 15
From top of back to centre figure..... 10½
From front of sye to hip..... 14

EXTRA MEASURE FOR THE BACK.

5 upon the line, which goes under the arm-hole, from the angle of the instrument.
From top of back to 5..... 7½

MEASURE OF THE FROCK COAT, as Figs. 1, 2, 3.

17, waist—22, projection—38, skirt—22, from middle of back to elbow—34, the hand—17, round the sye tight—6¼, elbow—4¾, to the hand—19, chest—16½, waist—23, lapell.

SHAPE MEASURES.

7¾ from top of back to top of instrument; 12½ from middle of back to front of sye on the instrument; 12 from top of back to front of sye; 15¾ from top of instrument over shoulder to front of sye, figure 9 in the centre of the sye on the instrument; 12½, the hook in of the top of the side-seam, as taken from the top of the back to 9; 6, the figure looked at on the instrument under the back sye, from 6 to 20, which is the centre figure in front, 18 inches; 12½ from the top of back to the

centre figure in front; 14¼ from the front of the sye to the hip; sleeve head 17, from the middle of back down back-arm seam; 28 over the top of sleeve to the fore-arm.

TO FORM THE BACK, as Fig. 1st.

Make from A to B the length of the waist; from B to C the length of the skirt; from B to D 2 inches; then strike up a line from A to D; next look at the shape measure, and mark 7¾ at E from A; then apply the rule, and draw the line E from the back seam, this line when applied to the fore-part, is the bottom of the sye; then angle out the top of the back, by placing the rule with the angle at A, in a line with the back seam the opposite way to what the line E was drawn, and mark a short line to make the width of the top of back upon, which may be done to fashion or fancy: next measure what is the distance from the top of the back at the shoulder seam to E, and make F the half distance from E; make the width across the back to G one inch more than a third of the breast, and the back sye as described on the plate, or any other way that may be approved of, draw the shoulder seam straight and the side-seam by about 22 inches, which completes the back for this or any other coat, by applying the measure in the same manner.

TO FORM THE FORE-PART, as Fig. 2nd.

First make from Q to P the same length as the back skirt, from P to O 5 inches; (this forms what may be considered a moderate full skirt) but more or less may be taken out according to size, or the fulness of skirt required, then draw a line from O to D, square with the upright line P O; make the distance from O to T 1½ inch more than the outside breast measure on the instrument. Place the angle of the square at T, and draw a line up square with T O, next place the angle of the square at E on the back, letting one edge of the square be even with the line E, and take what is the back hollow from D to the other edge of the square, say 2½, then mark 2½ from T to D, lay the back in the position described in the plate, with the hip at D, and E, falling upon the upright line; the back being in this position, draw the line across the fore-part under the sye by the rule, or continue it by the square, but so as to be true. Mark the side-seam of the fore-part by that of the back from the line to the hip, so that the back cannot be moved out of its place without your knowledge; and mark the points L, H, I, upon the line, as they are down in the shape measure: L, which is the centre of the sye is 9 inches; H, the front of the sye 12½ inches; and I, the centre figure on the instrument 20 inches. Square up the short line from H, for the front of the sye, and then before moving the back make V

a pivot, and keeping the point V stationary; draw in the back from A to L, to the hooking in measure which is 12½ inches, make a mark at the top of the side-seam, and allow a seam longer to make it right for joining; shape the side-seam from V to the top, and apply the hip measure from H to D, which is 14, and make V a pivot in order to bring the hip of the back into the measure, (but if the measure has been taken correctly there will be very little to take in between the back and the fore-part at the hip) mark the side-seam of the fore-part by the back from V to the bottom, and allow the fore-part at the bottom ¼ of an inch longer than the back for making up. The form of the back part of the coat being completed, proceed to form the shoulder strap by applying the strap measures 12 and 15¾. 12 is the measure from H to A, and 15¾ the measure from H to E. Circle these two dimensions by making H a pivot, that is to say A J, and E K, by H, and every part of the circle will be the same distance from H, then look at the measure which ascertains how forward or backward the shoulder is required to be, that is to say, upon what part of the circles the back is to be placed. This measure is 12½ inches, and is taken from the top of the back to the centre figure in front. This measure is applied on the circle, as may be seen by the inner circle of the neck on the plate, as from A to I. Therefore, instead of putting 12½ in distance from A to I,

mark 11½ on the straight, that is to say, taking off one inch on the straight for what it will measure more when going round a portion of the gorge; taking off an inch, however, is not always exactly right; therefore, after placing the back in position described in the plate, with the top of the back A, on the circle at the spot where 11½ dictates, and E on the back falling upon the upper circle wherever it touches, mark a portion of a circle as in the plate and apply the inch tape carefully, from the top of the back round the portion of the gorge till it will go straight to I, and move it forward or backward on the circles as the measure 12½ will require; when you have made it right to the measure make a mark as at A J. That this point may be stationary whilst the back is in this position, mark half of the shoulder seam across, allowing half an inch in front for loss in joining. Then place the rule in the position of E M, and from 6 at M, measure to I in front 17¾, which proves how much is taken out in the shoulder seam at the back shoulder point; this must be done by keeping the point A stationary, after the round of the shoulder seam is ascertained, (which will be more or less as the back is broader or narrower across the shoulders). Proceed to form the shoulder seam and sye as described on the plate. The neck may be cut according to fashion or fancy, unless for a button-up coat, when the measure must be taken from I, to X, and for the fulness

of the breast at top from H to X, then draw a small circle at N by the lapell length, applying your waist measure about one inch above the waist seam, to terminate upon the circle N. Form the breast as described on the plate, and draw a line from the bottom of the side seam to N, take out in the waist what the person's side-hollow is, as explained in the directions for taking measure, which in this case is $1\frac{3}{4}$ inches; the waist and breast being formed the body is complete. Then form the waist of the skirt, taking out an inch from a straight from R to P, making it to run in the direction from the coat hip at the bottom of side seam. Next, mark the space for width of lapell as from P, and from R to the point near P make the size of the body at the waist, and half an inch for fulness; then place the bottom of the side seam at R, and the point N at the point near P, and draw the spring of the skirt or pleat line from H in the front of the sye, round in a little at the bottom, and form the bottom in the usual way which completes Fig 2, or any other according to the measure. If the waist is stretched it must be taken in at the bottom of the side seam to allow for it.

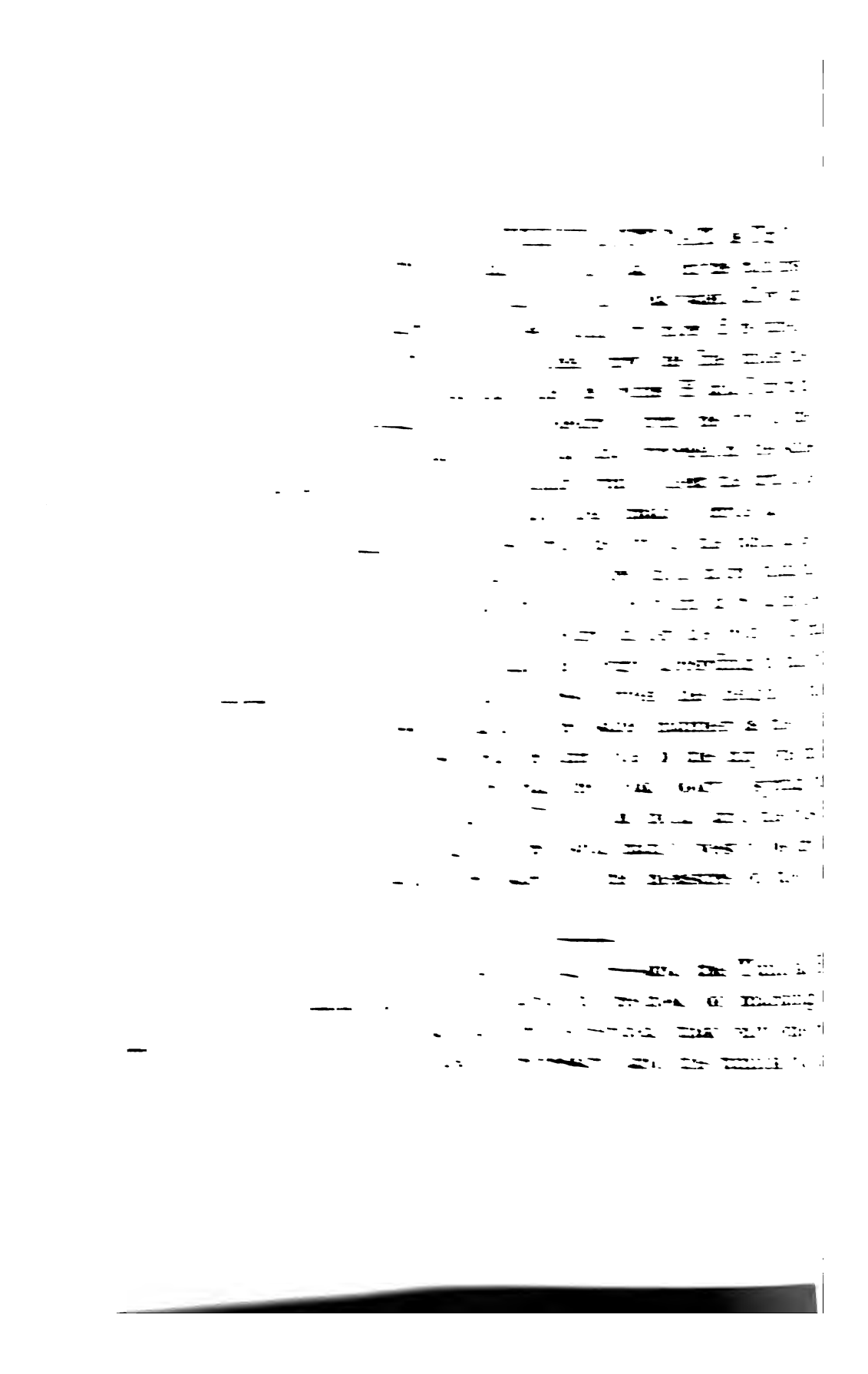
TO PRODUCE THE SLEEVE, as Fig. 3rd.

Suppose A C to be the edge of the cloth, from A to B is the length from the middle of the back to the elbow, say 22; continue to the hand at C 34,

taking off one inch for the stump of the cuff; from A to D is the width that the back is cut. Draw a line across the cloth about one inch from the top of the cloth as from D, to allow for round, and apply the sleeve measure. The distance from A to E is 17 inches, and from E to F in the continuation of the measure is 28; cast the circle F by the pivot E, lay in an inch at the top of the back arm seam for the fulness of the upper part of the sleeve, then take half of the sye measure, say 8, and apply it from the top of the under side sleeve to the circle F, casting a small circle. This point where the two circles cross is the height of the fore-arm, then draw a line square across, and make $\frac{1}{3}$ of the distance as at H, and draw the round of the sleeve head from D to the line, forming the remainder to F by the hand; make B a pivot and cast a circle from C to G, and make the distance from C to G $\frac{1}{3}$ of the distance from B to C; place the angle of square at G in a line with B, and draw a line from B to G; and also across the bottom take the measure for elbow and wrist, and draw the fore-arm seam round, and hollow the back-arm seam according to fancy, and clear the under side sleeve as described on the plate. This completes the sleeve of any coat according to measure.

The fore-part of all being worked the same, it will be only requisite to show the method of producing the dress coat skirt according to the spring which every person requires.

To produce the skirt of Fig. 4, whether the body be cut or not, proceed in the following manner: Draw a line from the edge of the cloth, as from S to R; for the pleat line, from S to R is the length of the back skirt; then take from the top of the back to O 22 inches which is the projection, and cast a circle out from R to W, by the point O; then mark from R to W the side hollow, which in this case is one inch and $\frac{3}{4}$; then strike up the line from O to P, place the hip of the back at W, and the back to the line P O; this is the first position of the back. Next, make a mark at U, and at the bottom of the side-seam, then place the angle of the square at E on the back, and the edge of the square even with the line E, and see what is the back hollow from the square to the hip of the back; then draw a circle from U to V, by making the bottom of side seam a pivot, and put the back hollow as from U to V; then move the side seam of the back from U to V, leaving the bottom of the side seam stationary, and proceed with the fore-part as in the frock coat. When the fore-part is complete, the length of the breast at N being determined by the measure, taking off what is required for the strap of the skirt. Draw a line from R to N, round in $\frac{1}{3}$ an inch at R from O, and allow 1 inch and $\frac{3}{4}$ more in length on the skirt than the nett size of the waist as measured on the straight; form the rest of the skirt according to fashion or fancy, and the skirt will be complete.



be broader than the coat back in proportion. Fig. 14 to be drawn out by the measure precisely the same as Fig. 4.

TO PRODUCE THE HABIT BODY, as Fig. 7.

In cutting the back make the width across the shoulders 2 inches more than a third, in every other respect the same as the coat back.

The body from the line upwards produced the same as the coat. After the upper part is formed proceed to cast the circles S and R; the circle S is cast by $12\frac{1}{4}$ from the top of the back, and the circle R by $16\frac{1}{4}$ from the instrument at E; from L to T is $6\frac{1}{4}$, then form the hollow to O; from D to O is 3 inches less than the waist measure, cast the same length from S to P as from S to O, and take out from O to P 4 inches; make from P to N 4 inches, and apply the measure from the top of the back to the peak, and the body is complete.

TO PRODUCE Fig. 9, THE SLEEVE.

Take from A to B 12 inches, and draw a line across by the square, then make from B to C one inch; make C a pivot and circle from A to the fore-arm, springing out a little as described on the plate; apply the fore-arm measure and the size at the hand, and the sleeve is complete.

TO PRODUCE THE BACK, Fig. 20.

WHICH IS THE HUMP BACK.

From A to B is the length of the waist, from B to D 2 inches, from D to J to fancy; mark from A to E $5\frac{1}{4}$, which is according to the measure; then draw the line E by the rule, from E to Z is 5 inches, then cast a circle by pivot E from A to F, then make Z a pivot, and intersect the circle by the measure from F to Z, which is $7\frac{1}{2}$; then round the back in from E to F, take half of the distance from E to F, and draw a line from H to I; the remainder of the back the same as any other coat.

THE HORSEMAN'S JACKET, Fig. 17.

To be marked out the same as the coat by refering to the measure.

EXPLANATION TO THE RULE.

The rule it must be understood is a fac-simile of the instrument, answering to half of it from the spine along the top edge, so that whatever measures are taken on the person will be produced in exactly the same manner on the cloth.

W. SHACKLETON AND SON, PRINTERS, MANCHESTER.

